

## THE CLAIMS

What is claimed is:

1. An article comprising a receptacle having at least one wall member that defines an enclosure, a food- or beverage-forming product present within the enclosure, and a tag associated with the receptacle, wherein the tag includes machine-readable information regarding the product.
2. The article of claim 1, wherein the tag is programmable.
3. The article of claim 1, wherein the tag is an RFID device.
4. The article of claim 3, wherein the tag includes identification information in electronic form for the product.
5. The article of claim 3, wherein the tag includes instructions in electronic form for preparation of the product.
6. The article of claim 3, wherein the tag includes a date of expiration in electronic form for the product.

7. The article of claim 3, wherein the tag includes a set of information in electronic form regarding features, characteristics or properties of the product.
8. The article of claim 1, wherein the food- or beverage-forming product provides a single serving portion of the food or beverage.
9. The article of claim 1, wherein the food- or beverage-forming product provides a multiple serving portion of the food or beverage.
10. The article of claim 1, wherein the tag includes an expiration date determined from the date when the receptacle is opened.
11. The article of claim 1, wherein the food- or beverage- forming product is a powder, a concentrate or a ready-to-drink product.
12. A method of dispensing a food or beverage, which method comprises:
- encoding instructions for preparation of the food or beverage on a machine-readable tag associated with a receptacle that contains a food-forming or beverage-forming product;
  - placing the receptacle in or close to a dispenser;
  - reading of the machine-readable tag by the dispenser prior to preparation of the food or beverage to be dispensed; and
  - executing the instructions encoded on the machine-readable tag by the dispenser to dispense the food or beverage.

12 A method of controlling the dispensing of a food or beverage product from a food-forming or beverage-forming product, which method comprises:

encoding a verification code on a machine-readable tag associated with a receptacle that contains a food-forming or beverage-forming product;

placing the receptacle in or close to a dispenser;

reading of the machine-readable tag by the dispenser prior to preparation or dispensing of the food or beverage; and

comparing of the verification code read from the machine-readable tag with a list of valid verification codes;

wherein the food or beverage is prepared and dispensed when the verification code read from the machine-readable tag matches a valid verification code from the list.

13 The method of claim 13, wherein an error code is generated when the verification code read from the machine-readable tag does not match a valid verification code from the list.

14 The method of claim 14, wherein the error code disables the dispenser from preparing or dispensing the food or beverage.

15 The method of claim 14, wherein the error code notifies a consumer that the product selected for dispensing is not available.

16 The method of claim 14, wherein the error code notifies an operator of the dispenser that an invalid product verification code has been read.

187 A method of determining consumption of foods or beverages from a dispenser, which method comprises:

recording information on a machine-readable tag associated with a receptacle that contains a food-forming or beverage-forming product;

updating a computer database with the recorded information;

reading of the machine-readable tag by the dispenser when the food or beverage is dispensed;

updating the computer database with information about the foods or beverages that are dispensed; and

sorting the information to determine consumption patterns for the foods or beverages that are dispensed.

188 The method of claim 18 , which further comprises:

reading the machine-readable tag before the receptacle is delivered to the dispenser to obtain supply information;

updating the computer database with the supply information; and

sorting the information to determine supply sources of the receptacles for the dispenser.

189 The method of claim 18 , which further comprises utilizing the consumption pattern information to schedule times for re-supplying the dispenser with receptacles.

20 A system for dispensing a product, comprising a dispenser adapted for reading a tag associated with one or more receptacles according to claim 1 and for preparing and dispensing a food or beverage from the food-forming or beverage-forming product(s) of the receptacle(s).

21 The system of claim 21, wherein the receptacle is composed of a non-conductive material and the tag is located within the enclosure.

22 The system of claim 21, wherein the receptacle is composed of a conductive material and the tag is attached to the at least one wall member on a side opposite that of the enclosure.

23 The system of claim 21, wherein the tag is an RFID device that includes information in electronic form regarding the features, properties or processing of the product.

24 The system of claim 21, wherein the dispenser includes a tag reader for reading the tag, and a processor having memory operatively associated with the dispenser, and the tag reader, and a connection to an external communications network, the processor configured to

signal the tag reader to read the tag;

receive information read from the tag by the tag reader;

store the information in the memory; and

place the information on the external communications network.

26 The system of claim 25 , wherein the tag includes product preparation instructions in electronic form and the processor is also configured to carry out the instructions to prepare and dispense the product.

27 The system of claim 26 , wherein the processor sets one of a dilution ratio, an operating temperature, a mixing time, or a dispensing time for the dispenser in accordance with the set of instructions in electronic form.

28. The system of claim 26 , wherein the processor is further configured to read a current time and date from an electronic clock, and then the processor compares the current time and date with a time and date of expiration contained in the set of information; and  
when the current time and date is earlier than or equal to the time and date of expiration, processor disables the dispenser from dispensing the product.

29 The system of claim 28 , further comprising the step of:  
when the current time and date is earlier than or equal to the time and date of expiration, the processor places a data set on the external communications network, the data set to include a name of the product, the time and date of expiration, and an indicia of identification for the dispenser.

30 A system for authenticating and dispensing a prepared product, comprising a plurality of receptacles, each having at least one wall member that defines an enclosed area containing a food- or beverage-forming product and a machine-readable tag associated with each receptacle, a

mechanism for extracting the food- or beverage-forming product from each receptacle, and preparing a food or beverage from food- or beverage-forming product(s), a device for reading the machine-readable tag, and a processor operatively coupled to the device and the mechanism, the processor configured to:

collect information from the machine-readable tag from the device for reading the machine-readable tag;

compare the collected information with a pre-determined quality indicia;

control the mechanism to extract and prepare the food or beverage when the collected information matches the pre-determined quality indicia; and

prevent the mechanism from extracting or preparing the food of beverage when the collected information does not match the pre-determined quality indicia.

30 The system of claim 30 , wherein the machine-readable tag is an RFID and the device for reading the machine-readable tag is an RFID reader.

31. The system of claim 31 , wherein the pre-determined quality indicia is a brand name, an indication of origin, a generic product grading or an expiration date.